

IR-1609 (2-1941)

UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent application of:

Date: October 14, 2005

Daniel M. Kinzer

Confirmation No.: 3190

Serial No.: 09/292,186

Group Art Unit: 2811

Filed: April 15, 1999

Examiner: Shouxiang HU

For:

P-CHANNEL TRENCH MOSFET STRUCTURE

**

Mail Stop Petitions Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

PETITION TO WITHDRAW HOLDING OF ABANDONMENT UNDER 37 CFR § 1.181

Sir:

In the above-identified patent application, a Notice of Abandonment dated September 15, 2005 has been received, a copy of which is attached. It is stated in the Notice of Abandonment that because the Board of Patent Appeals and Interferences rendered a decision on August 17, 2005 and the period for seeking court review of the decision has expired and there are no allowed claims, the application is abandoned.

Applicant contends that the period for seeking court review has not expired and that the application is therefore not abandoned. Specifically, in this application, applicant timely filed a Request for Rehearing on November 29, 2004 in response to a Decision by the Board rendered on September 27, 2004. In response to applicant's Request for Rehearing, the Board rendered the Decision of August 17, 2005, a copy of which is attached.

CFR § 1.197(b)(2) states that the date of termination of proceedings is "the date of which the time for appeal to the U.S. Court of Appeals for the Federal Circuit or review by civil actions (§1.304) expires...."

CFR § 1.304(a)(1) further states,

[t]he time for filing the notice of appeal to the U.S. Court of Appeals for the Federal Circuit... or for commencing a civil action... is two months from the date of the decision of the Board of Patent Appeals and Interferences. If a request for rehearing or

reconsideration of the decision is filed within the time period provided under § 41.52(a) ... of this title, the time for filing an appeal or commencing a civil action shall expire two months after action on the request.

Applicant respectfully submits that according to rules CFR § 1.197(b)(2) and CFR § 1.304(a)(1), applicant has two months from the Board's Decision of August 17, 2005 (i.e., October 17, 2005) to seek court review and that the application is thereby not abandoned. Accordingly, applicant respectfully requests that abandonment of the application be set aside.

This Petition is being filed within the allotted two months of the mailing date of the Notice of Abandonment and is believed to be proper and timely. It is believed that there is no fee due in connection with this response. However, if a fee is due, it should be charged to our Deposit Account No. 15-0700.

EXPRESS MAIL CERTIFICATE

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail to Addressee (mail label # EV606187910US) in an envelope addressed to: Mail Stop Petitions, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 14, 2005:

Dorothy Jenkins

Name of Person Mailing Correspondence

M - d // '

October 14, 2005

Date of Signature

SHW/GRF:db

Respectfully submitted,

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OCT 26 2005 TECHNOLOGY CENTER 2800 Please find below and/or attached an Office communication concerning this application or proceeding.

0CT 26 2005

OFGS FILE NO. 12-1609
(2-1941)
30-5-41-2005
15-007-2005

PATENTS ORDERED YM



Notice of Abandonment

Application No.	Applicant(s)	
09/292,186	KINZER, DANIEL M.	
Examiner	Art Unit	
Shouxiang Hu	2811	

Shouklang riu 2011
The MAILING DATE of this communication appears on the cover sheet with the correspondence address
This application is abandoned in view of:
1. Applicant's failure to timely file a proper reply to the Office letter mailed on (a) A reply was received on (with a Certificate of Mailing or Transmission dated), which is after the expiration of the period for reply (including a total extension of time of month(s)) which expired on
(b) A proposed reply was received on, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.
(A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
(c) A reply was received on but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
(d) ☐ No reply has been received.
2. Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85). (a) The issue fee and publication fee, if applicable, was received on (with a Certificate of Mailing or Transmission dated), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
(b) ☐ The submitted fee of \$ is insufficient. A balance of \$ is due.
Allowance (PTOL-85). (b) The submitted fee of \$ is insufficient. A balance of \$ is due. The issue fee required by 37 CFR 1.18 is \$ The publication fee, if required by 37 CFR 1.18(d), iss\$ The p
Allowance (PTOL-85). (b) The submitted fee of \$ is insufficient. A balance of \$ is due. The issue fee required by 37 CFR 1.18 is \$ The publication fee, if required by 37 CFR 1.18(d), is \$ (c) The issue fee and publication fee, if applicable, has not been received.
3. Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, therNotice of
(a) Proposed corrected drawings were received on (with a Certificate of Mailing or Transmission dated), which is after the expiration of the period for reply.
(b) ☐ No corrected drawings have been received.
4. The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. The decision by the Board of Patent Appeals and Interference rendered on <u>17 August 2005</u> and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. The reason(s) below:
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SHOUXIANG HU PRIMARY EXAMINER

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.

U.S. Patent and Trademark Office
PTOL-1432 (Rev. 04-01)

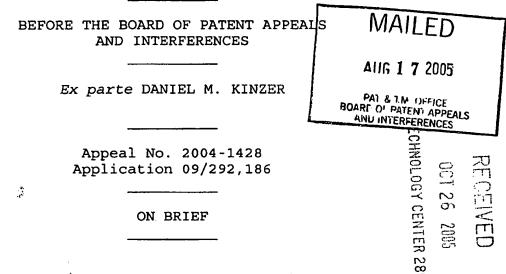
Notice of Abandonment

Part of Paper No. 20050913

The orinion support of the decision being entered today was not written for publication and is not binding precedent of the Board.

OCT 1 7 2005

UNITED STATES PATENT AND TRADEMARK OFFICE



Before BARRETT, OWENS, and BARRY, Administrative Patent Judges.

OWENS, Administrative Patent Judge.

ON REQUEST FOR REHEARING

The appellant requests rehearing of our decision mailed on September 27, 2004 wherein we affirmed the rejection of claims 1, 3-6, 8-13 and 20-22 under 35 U.S.C. § 103 over Floyd '716.1

¹ The appellant requests that we consider entry and review of the reply brief (request, first and second pages). Nonentry of the reply brief is a petitionable matter and, therefore, is not before us on appeal. See MPEP § 1002.02(c)(8)(8th ed. rev. 2, May 2004). Consequently, we do not consider the reply brief.

The appellant argues that the Floyd '716 device is structurally different than the appellant's device (request, first to second pages)². That argument is not included in the appellant's brief. "Any arguments or authorities not included in the brief will be refused consideration by the Board of Patent Appeals and Interferences, unless good cause is shown." 37 CFR § 1.192(a)(1997). Because good cause has not been shown, we do not consider the argument at this time.

In response to our statement that the appellant has not provided evidence that one of ordinary skill in the art would have been unable, through no more than routine experimentation, to adjust for the difference between the mobility of electrons and holes (decision, page 6), the appellant argues that such evidence should be inferred and apparent from the application, cited prior art references and literature in the field (request, second to third pages). The appellant, however, has not pointed out any evidence which shows that more than routine experimentation would have been required for one of ordinary skill in the art to adjust for the difference between the mobility of electrons and holes. The appellant argues that there

² The pages of the request for rehearing are not numbered.

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are differences in the circuitry of p-channel and n-channel devices (rehearing, second page), but the appellant has not provided evidence that any such differences would have caused the experimentation required by one of ordinary skill in the art to adjust for the difference between the mobility of electrons and holes to be more than routine.

The appellant argues that "[t]he Opinion suggests that Appellant should have compared the P-channel type MOSFET claimed in the present invention to other N-channel MOSFETS for performance, such as the N-channel MOSFET disclosed by Floyd '716" (request, third page). Our statement was that the appellant should have compared the claimed invention to the Floyd '716 n-channel MOSFET (not to other n-channel MOSFETs such as that of Floyd '716). As stated in our opinion, "[i]t is undisputed that Floyd '716 discloses a trench-type power MOSFET which differs from that claimed in the appellant's claims 1 and 9 only in that the Floyd '716 MOSFET is an n-channel MOSFET (n-p-n polarity) whereas the appellant's MOSFET is a p-channel MOSFET (p-n-p polarity)" (page 3). Thus, the comparison should have been between the claimed invention and the Floyd '716 MOSFET which differs in that one respect. The appellant argues that "it would be inappropriate to compare P-channel devices with N-

channel devices because of their significantly different principles of operation, such as the different modes of operation for the devices, and because of the extra circuitry needed to properly operate an N-channel type device, and the known characteristic of higher on resistance for P-channel type devices" (request, third page). The claimed structure differs from that of Floyd '716 only in the above-discussed polarity reversal. Hence, the proper comparison would have been between the claimed structure and that of Floyd '716.

The appellant argues that one of ordinary skill in the art would not have expected that removing the p-type epitaxial layer from the prior art device (figure 1 of the appellant's specification) would have produced a device having reduced on resistance and an equivalent voltage rating (request, third and fourth pages). The appellant's specification discloses that the claimed device produces a reduced threshold voltage (page 7, lines 29-30), not an "equivalent" voltage rating. Regardless, the rejection is not based on removing the p-type epitaxial layer from the prior art device discussed by the appellant but, rather, is based on reversing the polarity of the Floyd '716 device from n-p-n to p-n-p. As stated in our decision (page 9), the resulting device would not have the prior art p-type epitaxial layer discussed by the appellant. Moreover, the Floyd '716 n-p-n

MOSFET has a p-epitaxial layer grown directly on the substrate (col. 2, lines 25-28). Hence, when the polarity is reversed an n-epitaxial layer would be grown directly on the substrate. This layer would be the same as the appellant's n-epitaxial layer grown directly on the substrate and, therefore, like the appellant's n-epitaxial layer, would have a constant concentration along its full length (specification, page 7, lines 20-26). Consequently the device, like that of the appellant, would provide a low threshold voltage (specification, page 7, lines 26-27).

The appellant argues that the low threshold voltage would have been unexpected by one of ordinary skill in the art (request, third page), but the appellant has not provided evidence in support of that argument. The argument by the appellant's counsel cannot take the place of evidence. See In re De Blauwe, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984); In re Payne, 606 F.2d 303, 315, 203 USPQ 245, 256 (CCPA 1979); In re Greenfield, 571 F.2d 1185, 1189, 197 USPQ 227, 230 (CCPA 1978); In re Pearson, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974).

We have considered the appellant's request for reconsideration of our decision but, for the above reasons, we decline to make any change to the decision.

DENIED

De E BARRETT

Administrative Patent Judge

Terry J. OWENS

Administrative Patent Judge

LANCE LEONARD BARRY
Administrative Patent Judge

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BOARD OF PATENT APPEALS AND INTERFERENCES

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Ostrolenk, Faber, Gerb & Soffen 1180 Avenue of the Americas New York, NY 10036-8403

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